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## Planned 2021 Road Construction Projects Overview

### A. South Mallego Road Drainage

- a. In order to protect the integrity, and longevity of any road reconstruction that we have planned for the south end of Mallego Road, we have to address a substantial length of poor drainage area from Stone Farm Drive to Route 125. We are currently soliciting engineering quotes for the design, and easement work involved. It appears that the project will require a substantial amount of precast subsurface structures, accompanied by quite a bit of pipe to get the water to daylight on the opposite side of the road. There are several hundred feet of Lee Road that need to be part of this because of a historic drainage issue there that could be made worse if we don't make it part of the plan. It is hoped that the scope of work will not be so large that we can't do this ourselves, but no numbers are available yet.

### B. Oak Hill Road Drainage

- a. There is a yearly runoff situation at the intersection of Route 9 and Oak Hill Road that should be remedied before an overlay is put on Oak Hill Road. Last fall we diverted some of this water to an existing storm drain and took care of at least half of the problem. I believe that if we hammer out some ledge along the frontage of the Cilley property, and redo the end of a driveway, and ditch downhill from that, we can probably cure the problem. This would require rental of a hydraulic hammer to accomplish. I would think that we could do this job for under **\$10,000.00**.

### C. Orchard Hill Road Rebuild

- a. Orchard Hill Road is a class 5 dirt road that we maintain. It is a very narrow crooked road with a very high pinnacle at the height of elevation that makes oncoming traffic impossible to see each other. There is also a residence at roadside on this pinnacle. Mr. James Connick bought a lot of land on either side of this road and cooperated with the Town in previous years to realign the road to the base of the knoll, but it only makes sense to lower as much of the knoll as we can. This would require easements over more Connick property, and also over an access road to Pumpkin Hollow trailer park. The appearance of the house at the top of the knoll will be altered greatly, as its driveway will have to be relocated, along with a substantial retaining wall needing to be installed across the front of the house. The existing road would be pulled away from the front of the house so that traffic would actually be travelling further away from the front of the house than before. If and when this is accomplished, it will allow us to maintain the road better and easier both in winter and summer. Traffic visibility would be greatly enhanced. Nobody knows what is under the pinnacle. It could be ledge, which would complicate things a bit. The whole removing of the knoll portion of the project is totally dependent on the resident's acceptance of what his property will look like at the end of it all. We will be providing him with a conceptual sketch that will help him to visualize the end result.

- b. Engineers estimates on the original work minus the knoll were at **\$160,000.00**. I believe that with the knoll project added in, plus some structured drainage added in because of the slope, we could be well north of **\$200,000.00**. There is a wetland at the bottom of all this that will need protecting. It is anticipated that this would be funded through the Transportation Fee Capital Reserve account. There is a possibility that we could do this ourselves depending on the complexity.

#### **D. Lakeside Oaks Culvert Replacement**

- a. The outfall of Swains Lake is entirely drained through three old metal culverts on Lakeside Oaks Drive which is private property with no current easement to the Town. These culverts are in various stages of collapse, deterioration, and are all pitched the wrong way. Because of the diminished hydraulic capacity of these structures, the drawdown of Swains Lake ends up being very slow at times making a rapid emergency drawdown impossible without overtopping the road.
- b. We are currently looking into obtaining easements not only for the culverts, but also the downstream area between the culverts and Hall Road. It is anticipated that the new structure may be a higher wider precast concrete box culvert, with an accompanying raising of roadbed grade to accommodate increased flow when necessary. All of this will need to be engineered with DES approval. It is likely that this money will be taken from the Bridge and Culvert Capital Reserve Fund. Potential costs of **\$150,000.00 to \$175,000.00** are possible.

#### **E. Tree Canopy Removal**

- a. The Town has a burgeoning vegetation problem Town-wide. There are just too many trees overhanging the roads in a lot of places. There are at least two places where it seems that tree canopy is overhanging the road blocking the sun from reaching the road thereby allowing the frost to settle in deep, and unevenly lane to lane. Two of these roads are Deer Ridge, on the front section, which was reclaimed well within the last 10 years, and failed almost immediately. The most damage seems to coincide with the areas of overgrown tree canopy. The same thing applies to the end of Beauty Hill Road at Route 125. Solid canopy from top of hill to bottom, and very bad road heaving in this spot continuously. Both of these roads are on the radar for reconstruction in the near future. It makes no sense to spend money without mitigating this obvious phenomenon beforehand. Currently, I have estimates of around **\$4,000.00** for Beauty Hill, and **\$18,000.00 to \$20,000.00** for Deer Ridge. This money would come out of line 01-4312-01-4350, both this year's budget, and 2021.

#### **F. Engineering**

- a. There are many upcoming engineering projects ahead. Among them are:
  - i. Mallego Road drainage.
  - ii. Orchard Hill Road reconstruction.
  - iii. Lakeside Oaks Culvert engineering.
  - iv. Engineering for design and construction of a rip\rap filter on the face of the Swains dam to mitigate erosion from wave action. DES has been mentioning with every inspection that they would like to see this soon.
  - v. Potential core sampling on Deer Ridge to determine root cause of very premature road failure numerous times.
- b. This money would come from line 01-4311-01-4349.

-Marc Moreau, Road Agent